

UNIVERSITI TEKNOLOGI MARA

**EFFICACY AND SAFETY OF
WARFARIN IN GERIATRIC
PATIENT WITH
NONVALVULAR ATRIAL
FIBRILLATION IN HOSPITAL
TUANKU JA'AFAR SEREMBAN**

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Dissertation submitted in partial fulfillment
of the requirements for the degree of
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AUTHOR'S DECLARATION

I declare that the work in this thesis/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Nonvalvular atrial fibrillation patients need long-term oral anticoagulant such as warfarin. Warfarin has a narrow therapeutic index, high potential for interaction with food and drugs and can cause bleeding. Geriatric patients are at risk of bleeding. In this study, the efficacy and safety of warfarin and their relationship with other factors have been studied in geriatric of warfarin clinic. There were 84 patients met the inclusion criteria. Patient's data were retrieved from the hospital medical record, medication therapy adherence clinic form, and hospital computerized system named "*Sistem Pengurusan Pesakit*". Warfarin therapy is normally presented with the fluctuation of TTR values. TTR values were calculated by Rosendaal and Traditional methods. Data descriptive in this study presented with mean, frequency and percentage when appropriate. Statistical analysis tests used were chi-square, t-test, ANOVA, correlation and regression when appropriate with p-value <0.025 (2 tails) is considered significant. Efficacy is defined as good when TTR>65% and the safety assessment defined as INR>3 which related risk of bleeding. The result showed, in term of efficacy, only 44% achieved TTR >65%. The mean TTR for the one year period was 60.1% \pm 19.6% (Rosendaal method) and 51.9% \pm 18.6% (Traditional method). In term of safety, from 1073 INR readings, INR>3 was 17.39% of total INR. There were 8 patients admitted due to over warfarinization which representing 9.4% of total admissions with mean INR 5.4 \pm 1.58 while mean weekly dosing was 13.6 mg and mean TTR was 50.6%. There were three predictors of efficacy, number of missed dose, number of concurrent medication and number of visited warfarin clinic (p-value<0.025). In conclusion, a majority of geriatric patients were not achieved efficacy, and a few of them had a risk of bleeding. Thus, in order to increase majority of geriatric patients achieved efficacy and safety of warfarin therapy, more efforts and appropriate strategies are needed.

Keywords: Geriatric patients, warfarin clinic, efficacy, safety and bleeding.

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